VIET KHOI PHAM KHAC

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Education

PURDUE UNIVERSITY West Lafayette, IN
Bachelor of Science in Computer Engineering Expected Graduation, May 2025
GPA: 3.95 / 4.0
Relevant Courses:

- Finished: Advanced C Programming, Introduction to Digital System Design
- In-progress: Data Structures, ASIC Design Lab, Software Engineering Tools

Skills

Programming Language: C, Python, MATLAB, Java, HTML/CSS, JavaScript
Hardware: SystemVerilog, PCB Design, Arduino, 3D Printing, Electronics, Soldering
Professional Organization: Purdue ECE Student Society (Faculty Outreach team), Purdue IEEE (Social Chair)

Experience

Purdue System-on-Chip Extension Technologies (SoCET)
PCB DESIGNER June 2022 – Present

- Designed and developed PCBs as test platforms to verify the functionality of and enable real-time communication with fabricated chips using KiCad
- Added different features to the platform to extensively test SoCET's latest fabricated chip, including FTDI communication and on-chip memory, and adapted to the multiple-signal pins characteristics of the chip.
- Redesigned and improved old platforms to implement better communication with the chip through the use of on-board elements such as ring oscillator, serial-to-USB interface, and multiplexed DIP switches.

CBRIC/HARD AI September 2022 - Present

- Researched and studied Compute-in-Memory technology.
- Utilized SystemVerilog to realize activation function module for AI accelerator hardware with a pipeline design to improve computational speed.

Collaborative Robotics Lab at Purdue University - 4D Printer for Smart Device Printing
RESEARCH ASSISTANT February 2022 – Present

- Designed and fabricated smart devices, including the circuit board and the outer layers using only 3D printers
- Programmed an ESP8266 Wi-Fi Module for the smart devices to communicate with personal computers and display parameters on a custom-made website using HTML/CSS
- Created a KiCad library consists of different components of smart devices to be converted to G-Code and available for automatic printing

Purdue University
UNDERGRADUATE TEACHING ASSISTANT January – May 2023

- Teaching assistant for ECE 27000 (Introduction to Digital System Design) at Purdue University
- Help students build and troubleshoot basic digital design with physical circuits and SystemVerilog

Purdue IEEE – Computer Society
SOFTWARE DEVELOPER August 2021 - Present

- Designed and built an 8-bit CPU's ALU, register files, and decoders using breadboards and ICs
- Developed a robot's software to follow a person with computer vision and speech recognition using Python's OpenCV library and made use of Raspberry Pi to configure and control motors
- Redesigned and rebuilt Purdue IEEE's server which hosts its website, financial software, and mailing systems.

Purdue Summer Undergraduate Research Fellowship (SURF)
RESEARCH FELLOW May – August 2022

- Researched dielectric elastomers actuators (DEAs) at Multimaterial 3D Printing of Bioinspired Robotics Lab
- Fabricated DEAs with a core-shell structure, tested the devices under high voltage to determine their break down strength, and analyzed the data using MATLAB
- Wrote a final technical paper and presented a symposium in front of a judge panel, consisting of Purdue's professors, undergraduate and graduate students, and post-doc students